APPENDIX C

RI/FS WORK PLAN COMMENTS ADDRESSED IN THE SURFACE WATER QUALITY ASSURANCE PROJECT PLAN

Appendix C: RI/FS Work Plan Comments Addressed in the Surface Water Quality Assurance Project Plan

Comment Source	Document Section	TCAI Ref#	EPA Ref #	Document Page Number[a]	Work Plan Comment Text	Work Plan Comment Response	Surface Water QAPP Response
USEPA 2007a	General Comment	2.4	1	1-1	- Develop Sampling and Analyses Plans (with associated standard operating procedures for collection and analyses of samples)	Sampling and analysis plans will be prepared separate from the RI/FS work plan. Study designs will be closely coordinated with EPA, technical experts, and participating parties.	The surface water sampling design proposed in this QAPP has developed in close coordination with EPA, and was discussed with EPA and the Participating Parties at the December 13. 2007 meeting in Spokane and the January 2008 workshop in Seattle.
USEPA 2007a	General Comment	6	1	1-1.1	Permits - The Archaeological Resources Protection Act (16 U.S. C 700) requires a permit be obtained for any activity with potential to impact or disturb an archaeological site. These permits must be obtained from the appropriate tribe or land management agency. Also, consultation with the U.S. Fish and Wildlife Service (FWS) under section 7 of Endangered Species Act (ESA) is required for onsite actions associated with CERCLA activities. As per section 7(a)(1) of the ESA, all federal agencies have an obligation to use their authorities to recover or provide for the conservation of endangered and threatened species in addition to the requirements to "not jeopardize the continued existence of" the species. These requirements are consistent with EPA Region X activities previously conducted at the Upper Columbia River site and other sites throughout the northwest. In addition, a scientific collection and research permit will be required from the National Park Service (NPS) for any sampling events conducted within the boundaries of the National Recreation Area.	TCAI will obtain all required permits prior to any sampling.	Permits and access agreements are not required for surface water sampling. Access to sample locations will be obtained by sampling vessel.
USEPA 2007a	General Comment	9.1	188	1-1	Based on Figure 7.2, numerous SAPs and investigations are potentially proposed for 2007. The sequential rationale and connectivity to the CSM of these investigations needs to be described in greater detail. Studies planned for 2007 should be supported by previous work, should support the CSM, and must be a priority for immediate attention. Prior to initiation of sampling there is a need for consensus on components to the RI portion of the Work Plan. This includes:	Problem formulation elements throughout the RI/FS work plan, more specifically the CSMs in Section 6, have been revised. Data gaps, study rationale, and study sequencing are discussed in Sections 7 and 8. We plan to limit the amount of detail on study design in the RI/FS work plan to allow for early input from EPA, technical experts, and participating parties prior to SAP development.	The surface water study proposed in this QAPP has developed in close coordination with EPA. The rationale for the proposed surface water study, which includes data gaps based on the results of previous studys, is summarized in Section B1.1.1. The relationship between the proposed surface water study and the Site CSM is illustrated in Section A5.1.1, and DQOs are presented in Section A7.
USEPA 2007a		9.2	188	1-1	- Problem Formulation, CSM(s), and Data gaps	Elements of problem formulation are included in the revised RI/FS work plan. These elements are highlighted in the Introduction. CSMs have been revised in response to the discussions at the April 2007 Workshop. The data gaps analysis is discussed in greater detail in Sections 7 and 8.	The surface water study proposed in this QAPP has developed in close coordination with EPA. The rationale for the proposed surface water study, which includes data gaps based on the results of previous studys, is summarized in Section B1.1.1. The relationship between the proposed surface water study and the Site CSM is illustrated in Section A5.1.1, and DQOs are presented in Section A7.
USEPA 2007a	General Comment	9.3	188	1-1	- Assessment endpoints and data quality objectives (DQOs)	Assessment endpoints will be addressed in the BERA work plan and DQOs will be included in the SAPs. Early discussion of proposed study rationale, DQOs, study design, and target analytes will be discussed with EPA prior to submitting draft SAPs.	The surface water study proposed in this QAPP has developed in close coordination with EPA. The rationale for the proposed surface water study, which includes data gaps based on the results of previous studys, is summarized in Section B1.1.1. The relationship between the proposed surface water study and the Site CSM is illustrated in Section A5.1.1, and DQOs are presented in Section A7.
USEPA 2007a	General Comment	9.4	188	1-1	- Prioritization of investigations.	See response to Problem Formulation, CSMs, and Data gaps, above. The rationale for sequencing investigations is provided in revisions to Sections 7 and 8.	The surface water study proposed in this QAPP has developed in close coordination with EPA. The rationale for the proposed surface water study, which includes data gaps based on the results of previous studys, is summarized in Section B1.1.1. The relationship between the proposed surface water study and the Site CSM is illustrated in Section A5.1.1, and DQOs are presented in Section A7.
USEPA 2007a	General Comment	10.1	188	1-1	Cultural resource issues -For any testing activity to occur on an archaeological site, the land manager must review the plan, consult with the Tribes about any potential affect of the proposed activity, and issue a permit prior to the initiation of the project. This requirement is relevant to some invasive investigation activities and remediation activities that may be proposed as part of the RI/FS. The land management agencies and the tribal governments must issue permits under the Archaeological Resources Protection Act (16 U.S. C 700) for any activity that may disturb an archaeological site.	TCAI will make sure that appropriate communication has occurred and permits are obtained prior to any sampling effort. TCAI is currently coordinating with DOI to ensure effective communication and coordination for future sampling.	The possible disturbance of cultural resources during surface water sampling is addressed in Appendix E2 of the surface water QAPP. No significant soil or sediment disturbances will occur during zooplankton sampling.

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USEPA 2007a	General Comment	10.2	188	1-1	EPA will coordinate the preparation of this plan with the NPS, the Bureau of Reclamation (BOR), the Confederated Tribes of the Colville Reservation (CTCR) and the Spokane Tribe of Indians (STI). For those areas under State jurisdiction, EPA must follow requirements of the Washington State Laws Chapter 27.53 RCW Chapter 25-48 WAC; "Archaeological Sites and Resources" and Chapter 27.44 RCW Indian Graves and Records. The Cultural Resource Coordination Plan will be completed prior to initiation of field activities in 2007. The requirements of the plan will likely require coordination with the Sect. 106 consulting parties, the award of contracts or interagency agreements, and field staff availability. Consulting parties will need additional lead time to do these actions, thus field sampling for sediments or other ground disturbing activity will not likely be possible before late summer 2007 at the earliest.	A draft Cultural Resources Coordination Plan has been submitted to EPA and participating parties for review and comment. TCAI is fully aware that prior to conducting any intrusive sampling programs (e.g., sediment sampling), it will be necessary to obtain the appropriate permits and clearance on the proposed sampling activities. TCAI understands that under the Five-Party Agreement, a long-standing system (i.e., review and approval process) has been established and as such, is exploring potential efficiencies with DOI and EPA on this matter.	The possible disturbance of cultural resources during surface water sampling is addressed in Appendix E2 of the surface water QAPP. No significant soil or sediment disturbances will occur during zooplankton sampling.
USEPA 2007a	General Comment	20	272	1-1	Mercury - The fate and transport of Hg needs greater emphasis. This is especially true of the lower reservoir. A sub-CSM needs to be emphasized, with tasks clearly laid out to understand conditions and mechanisms of transport and potential biomagnifications. Further, sediment flux release from metals enriched sediments/weathered slag along the thalweg of the mid and lower reservoir is critical and should have an investigation plan defined.	Development of a mercury CSM is dependent on the outcome of some of the upcoming sampling programs (e.g., surface water), which will help to determine the environmental media (compartments) of greatest relevance to mercury cycling. Mercury is subject to fate and transport processes (e.g., methylation, biomagnifications) that do not affect some of the other metals or metalloids. RI/FS work plan language has been modified to better describe the studies that may be conducted related to mercury bioavailability and food web cycling.	The proposed surface water COIs include mercury (see Table A-5).
USEPA 2007a	General Comment	30	272		Air Pathway and Human Health – Somewhat unclear is the exact proposed path forward to review existing records and advance future work to assess potential human health risks. A more coherent, connected plan of action is needed that will relate clearly to the pending EPA HHRA Work Plan.	The human health documents are being developed by EPA. Details of the approach to assessing human health risk will be included in the HHRA work plan. The TCAI team (focused on ecological risks) is closely coordinating refinements to the CSM and in the future will coordinate proposed sampling efforts with the HHRA team to ensure that future sampling efforts meet the needs of both human health and ecological risk assessment efforts.	Human health considerations were included in the design of the proposed surface water study (See Section A7).
USEPA 2007a	General Comment	31	272	1-1	Bathymetric Surveying, Side-Scan Sonar, other Methods – Again, how this type work will be performed to support the CSM and fate & transport investigation should be clearly defined. To contain costs the greatest emphasis can be placed on: the slag deposition zone near Marcus and on potential lower energy zones in the flowing upper Columbia River; at strategic locations that are representative of the depositional/erosional characteristics of the site (e.g. see #5 above); at other significant deposition zones of metals enriched sediments (see # 8 as an example), and; at fixed stations that can be monitored again in the future for long-term observations.	The rationale and sequencing of studies have gone through extensive revision, and are described in revised Sections 7 and 8. Details on methods will be provided in future SAPs. We agree that Marcus Flats is of central interest. This comment will be considered in more detail when study designs are developed.	Proposed surface water sampling methodology is discussed in Section B2 and Appendix A. A transect is proposed at Marcus Flats to assess potential impacts of metals-enriched sediment in that area to surface water.
USEPA 2007a	General Comment	36	1	1-1	Three key areas to de-emphasize in the Work Plan and use more strategically: 1-Minimize the use of top-down approaches. 2-Reduce the reliance on background/reference 3-Reduce the emphasis on multiple stressors in the risk assessment. These approaches should only be considered when necessary to explain data/results and must be dealt with during the Problem Formulation when selecting endpoints and determining how to interpret data.	These approaches have been deemphasized in the RI/FS work plan and considered, when necessary, to interpret data. Data interpretation in the RI/FS work plan has been scaled back (deferred to later documents) and the stressor section is now focused on chemical stressors only. Section 9, Ecological Risk Assessment Approach, is more strictly aligned to Superfund guidance.	Evaluation of background concentrations of COIs in surface water is part of the broader data evaluation and risk assessment framework. Consequently, samples from major tributaries will be collected to help define background for the risk assessment.
USEPA 2007a	General Comment	42	1	1-1	Uranium or Thallium has been screened-out based on Ecological concerns as a COC related to fish. These COPCs must remain for human health concerns.	Based on discussions at the April 2007 Workshop, uranium or thallium have not been screened out. Human health documents for the UCR are being led by EPA and are not included in the RI/FS work plan. Sampling and analyses that supports both human health and ecological assessments will be coordinated with EPA to ensure that human health issues are addressed.	The proposed surface water COIs include uranium and thallium (see Table A-5).
USEPA 2007a	General Comment	47	1	1-1	The Work Plan should discuss whether or not the RAGs required statistical power for evaluating fish tissue concentrations has been met for COCs. If this is determined to be a data gap, the Work Plan should discuss sampling to fill the data gap.	The human health documents for the UCR are being led by EPA and are not included in the work plan. Sampling and analyses that supports both human health and ecological assessments will be coordinated with EPA to ensure that human health issues are addressed.	DQOs supporting the human health risk assessment (HHRA) are included in the proposed surface water study (See Section A7). The sampling program is designed to provide surface water data needed for the HHRA.
USEPA 2007a	5.2.6.6	105.06	110	5-1	Section 5.2.6.6 – The distribution of trace-elements between sediment bound phase and water phase was measured at Northport (Bortleson et al. 2001) and was very different than reported in the cited reference (Depledge and Rainbow 1990) which was not directly related to the study area.	This section has been deferred to a later document. This comment will be addressed at that time.	The proposed surface water sampling includes analysis of trace element concentrations in the water column which may be used, along with sediment data, to assess sediment-water distributions.

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USEPA 2007a	5.2.6 Metals	122	136	5-27	The statement implies that sediment "metals" are selectively mobilized from bottom sediments during high or peak river flow conditions. Selective mobilization from the particulate phase suggests dissolution/desorption during these high flow events, related to some type of change in surface water chemistry. Please elaborate on this mechanism by which sediment metals are selectively mobilized from "bottom sediment" under these conditions, and describe which geochemical conditions exert the greatest control over this process.	This section is now deferred. This comment will be addressed in a later document.	As described in Section A6, the proposed surface water study was designed so that sampling events correspond to different water flow conditions and pool elevations that may influence COI concentrations in surface water in the UCR and its major tributaries.
USEPA 2007a	5.2.6 Metals	126	138	5-29	Clarify what is meant by the statement "mobilize metal concentrations in the water column." What is meant by "downstream depositional zones? There does not appear to be a map in the Work Plan presenting a depiction of these zones, or any corresponding narrative description of these specific areas. In most river systems, an increase in flow produces a dilution effect that acts to reduce concentration, although total load may increase. This statement seems to imply that a data gap exists in the overall understanding of the relationship between surface water chemistry in selected areas of the UCR and areas where active river bed scour is occurring during high flow periods.	The section on which this statement is based has now been deferred to a later document. This comment will be addressed at that time.	The proposed surface water sampling locations include depositional areas (see Section A6.1)
USEPA 2007a	5.2.6 Metals	128	138	5-29	Temporal characterization sampling should also include characterization of the entire flow cross-section as this would be more representative of the water column.	The method for collecting surface water samples has not been determined. In general, sampling methods will be designed to address the purpose of the study. For surface water, the purpose of the sampling is to collect representative water samples that can be analyzed for selected chemicals and then compared to benchmarks to support the risk assessments.	Surface water samples will be collected near the shoreline to address exposures to aquatic and aquatic-dependent ecological receptors and human health. Offshore samples will be collected to address exposure to demersal fish in near-bottom water, and pelagic fish, plankton, and aquatic-dependent wildlife in near-surface water.
USEPA 2007a	5.3.1 Fate and transport	138	144	5-35	This statement implies that weathering of mineral phases in the granulated slag [ferrous granules] is more important, and occurs to a greater degree, in the upper UCR reaches where greater quantities of slag are known to be present. As such, this information should be referenced in earlier discussions of Section 5 (Section 5.2.6.6.) regarding the potential that this weathering may have on the mobilization of metals from bottom sediments during various flow regimes.	The text does not imply that sediment-water mass transfer is necessarily more important in upper reaches. The sediment-water mass transfer flux is controlled by the availability of weatherable slag, the rate of weathering, the maximum degree of weathering ("weatherability"), and the concentration gradient between pore water and the water column. The relative importance of sediment-water mass transfer would be evaluated as part of future RI/FS studies.	As described in Section A6, the proposed study will provide an initial assessment of the impacts of potential mobilization of metals from bottom sediments on surface water quality by collecting near-bottom (approximately 1 meter above the bottom) samples across several transect locations placed throughout the site, including the upper reach.
USEPA 2007a	8 Remedial Investigation Approach	209	272	8-1	It is acknowledged herein that all studies have not likely been identified and new data gaps may be recognized. However, this section as a whole needs to include further specificity before substantive comments can be provided on the proposed work. Generally we support the types of studies proposed, including bathymetry, hydrodynamic modeling, acoustic Doppler current profiling, porewater studies, and sediment, beach and sturgeon sampling. However, it is difficult to comment on the adequacy of the studies without further detail on which studies actually will be conducted.	Section 8 has been substantially rewritten to focus on studies and sequencing. The BERA work plan will contain the approach and rationale for most studies pertaining to the ERA. Individual SAPs will provide detailed evaluations of existing data; full DQOs; sampling approach, rationale and methods; and the QAPP. We plan to limit the amount of detail on study design in the RI/FS work plan to allow for early input from EPA, technical experts, and participating parties prior to SAP development.	The surface water study proposed in this QAPP has developed in close communication with EPA. Existing surface water data evaluations are discussed in Appendix B of the QAPP. Proposed sampling approach, rationale, and methods are discussed in Appendix A Section 2.
USEPA 2007a	8 Remedial Investigation Approach	209	272	8-1	It is acknowledged herein that all studies have not likely been identified and new data gaps may be recognized. However, this section as a whole needs to include further specificity before substantive comments can be provided on the proposed work. Generally we support the types of studies proposed, including bathymetry, hydrodynamic modeling, acoustic Doppler current profiling, porewater studies, and sediment, beach and sturgeon sampling. However, it is difficult to comment on the adequacy of the studies without further detail on which studies actually will be conducted.	Section 8 has been substantially rewritten to focus on studies and sequencing. The BERA work plan will contain the approach and rationale for most studies pertaining to the ERA. Individual SAPs will provide detailed evaluations of existing data; full DQOs; sampling approach, rationale and methods; and the QAPP. We plan to limit the amount of detail on study design in the RI/FS work plan to allow for early input from EPA, technical experts, and participating parties prior to SAP development.	The surface water QAPP (Appendix D) contains an evaluation of existing data. DQOs for the surface water study are provided in Table A-6. The sampling approach, rationale, and methods are provided in Appendix A Section 2.
USEPA 2007a	8.1.1 Problem Description	211	273	8-1	As with non-contaminant stressors, identification of other sources should be a low priority (at least initially). The primary concern should be to determine if risks exist, where, from what, and to what. Once this is determined, then the issues concerning sources should be investigated.	Comment acknowledged. Source identification will not be a primary driver for initial data gathering activities. However, sampling programs will be strategically designed to gather information in the UCR that may be associated with sources (e.g., near tributaries) to ensure that risks within the site are properly evaluated.	Surface water sampling will occur at two locations in Canada to gather data on COI concentrations entering the site.
USEPA 2007a	8.1.1 Problem Description	214	273	8-2	Will this effort to better understand "other sources of contamination to the UCR" also include an assessment of other possible sources of contamination to the Columbia River north of the U.S.-Canadian border? Please clarify.	Identification of contaminant sources in Canada that discharge to the Columbia River is not a goal of the RI/FS. However, measurement of water quality and sediment quality at the U.S.-Canadian border will be undertaken to understand the magnitude of contamination entering the U.S. The text will be revised accordingly.	Surface water sampling will occur at two locations in Canada to gather data on COI concentrations entering the site.
USEPA 2007a	8.2.1 Sediment	218	279	8-8	Clarify if sediment sampling will include analysis of suspended particulates in addition to bottom, side bank and beach samples. If so, sampling should be conducted during different flow regimes to determine potential mobilization of particulates over the range of expected flows, which will help to better understand particulate transport in the UCR.	This comment will be addressed in upcoming sediment and surface water sampling and analysis plans.	The surface water program will analyze total and dissolved COI concentrations, and total suspended solids (TSS). The need for COI data for suspended particulates will be discussed in the sediment QAPP.

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USEPA 2007a	8.2.4 Surface Water	238	287	8-16	Testing should also include turbidity, conductivity, and TDS.	This comment will be addressed in the surface water SAP.	Field measurements of turbidity and conductivity, and laboratory analysis of total dissolved solids (TDS) are included in the proposed surface water study design (see Section A6.2).
USEPA 2007a	9 Ecological Risk Assessment Approach	275	300	9-3	This figure does not identify any DQOs. EPA and the participating parties will need to be part of the process be developed what data will be needed, how much and of what quality.	DQOs will be identified in the BERA work plan and various SAPs. All DQOs will be developed in conjunction with EPA and the participating parties.	DQOs for the surface water study are shown in Table A-6 and discussed in Section A7.
USEPA 2007b	General comments	3	A002		There is a concern that pollutants in a fast-moving river, as it was historically, would have been deposited much further downstream and also even beyond the current dam location. There are transport mechanisms created through drawdown. Pre-post dam considerations should be included in DQO development for each SAP, as needed, to allow decisional interpretation of the data, particularly with respect to any assumptions about exposure to contaminants.	Comment acknowledged. Future SAPs and associated DQOs will consider, as needed, transport processes (e.g., reservoir drawdown) in the interpretation of data and assessment of site risks as set forth within the June 2, 2006 Settlement Agreement.	The need for the consideration of pre-dam conditions has not been identified for the surface water study proposed in this QAPP. The focus of the surface water QAPP is on determining if unacceptable risks occur. Potential releases of COIs due to dam drawdown may be suggested bythe results of the proposed nearshore samples.
USEPA 2007b	General comments	5	A003_2		The breakdown, or decrepitation of slag is not well understood. The Work Plan should address this issue by proposing studies to address movement of slag material via leaching processes between the bed load and both surface water and pore water to better inform the CSM.	Agreed. See response, above.	As described in Section A6, the proposed study will provide an assessment of the impacts of leaching processes on surface water quality by collecting near-bottom (approximately 1 meter above the bottom) samples across several transect locations placed throughout the site.
USEPA 2007b	1_Introduction	13	A011	1-8	Pg 1-8, section 1.3.2, 3rd par – A more comprehensive application of the DQO process is needed in section 8 to justify proposed investigations.	DQOs will be developed during SAP preparation.	DQOs for the surface water study are shown in Table A-6 and discussed in Section A7.
USEPA 2007b	1_Introduction	14	A012	1-8	Page 1-8, Last paragraph -Modify third sentence to state that cultural resource plan will be coordinated with all Section 106 consulting parties for Lake Roosevelt, including the two Tribes, State of Washington DAHP, Bureau of Reclamation, and the National Park Service.	Agreed. TCAI is currently discussing with DOI the most efficient way to coordinate with the entities. Revised text for this section includes the recommended information.	The possible disturbance of cultural resources during surface water sampling is addressed in Appendix E2 of the surface water QAPP. No significant soil or sediment disturbances will occur during zooplankton sampling.
USEPA 2007b	3_ARARs	38	A035	3-1	Pg 3-1, 1st par -Consultation under section 106 Archaeological Resource Protection Act and section 7 of ESA are required for onsite actions associated with CERCLA activities. This is consistent with EPA Region 10 activities previously conducted at the Upper Columbia River site and other sites throughout the northwest. In addition, a scientific collection permit will be required from the National Park Service for any sampling events conducted on the National Recreation Area. DOI plans on developing a federal access agreement with Teck Cominco to support these permit and sampling needs for the RI/FS.	Agreed. Text has been revised accordingly.	Permits and access agreements are not required for surface water sampling. Access to sample locations will be obtained by sampling vessel.
USEPA 2007b	3_ARARs	41	A038		"NHPA requires that the agency implementing the undertaking consult with the SHPO, the land-managing agency and the appropriate tribal governments about their proposed undertaking, its' potential effect on cultural resources, and any actions proposed to mitigate an adverse effect on the site."	Text has been revised accordingly. We agree that consultation needs to occur. TCAI is currently coordinating with EPA and DOI regarding the cultural resources plan to to ensure effective communication and coordination for future sampling.	The possible disturbance of cultural resources during surface water sampling is addressed in Appendix E2 of the surface water QAPP. No significant soil or sediment disturbances will occur during zooplankton sampling.
USEPA 2007b	Section 8_Remedial Investigation Approach	108	A083		Studies that will address potential affects of COCs to wildlife need to be included in the RI/FS work plan and process. Evaluations of sediment, soil and food ingestion by various wildlife species should be included in the studies. There is a fair amount of interpretation based on previous investigations and publications. Section 8.1.1 Problem Description should include references to support conclusions and speculation on sediment dynamics.	The BERA work plan will address this comment.	DQOs supporting the terrestrial component of the ecological risk assessment (ERA) are included in the proposed surface water study (See Section A7). The sampling program is designed to provide surface water data needed for the ERA.
USEPA 2007b	Section 8_Remedial Investigation Approach	109	A084		Section 8. Remedial Investigation Approach. Introduction. It is acknowledged herein that all studies have not likely been identified and new data gaps may be recognized. However, this section as a whole needs to include further specificity before substantive comments can be provided on the proposed work. In general we support the types of studies proposed, including bathymetry, hydrodynamic modeling, acoustic Doppler current profiling, porewater studies, and sediment, beach and sturgeon sampling. However, it is difficult to comment on the adequacy of the studies without further detail. In addition, some important studies additional studies may including but not limited to sediment profile imaging (SPI), TDS analysis of surface water, analysis of centrifuged sediments, transect surface water sampling, upland groundwater, air and soil studies and landslide and discharge data review. Finally, based on fish tissue results, PCB concentrations are a potential data gap.	The rationale and sequencing of studies is going through extensive revision, and will be described in Section 8. The additional detail requested in this comment is more likely to be provided in the SAPs, where a more detailed rationale for study elements will be provided. We plan to limit the amount of detail on study design in the RI/FS work plan to allow for early input from EPA, technical experts, and participating parties prior to SAP development.	The surface water study proposed in this QAPP has developed in close coordination with EPA. The rationale for the proposed surface water study, which includes data gaps based on the results of previous studys, is summarized in Table A-7. The list of proposed analytes includes PCBs as well as TDS (Section A6.2). Transect samples are proposed for locations within the UCR, as described in Section A6.1.
USEPA 2007b	Section 8_Remedial Investigation Approach	128	A100	8-15	pg 8-15 8.2.4 Surface Water -In addition to the basic data needs for surface water included mentioned on page 8-15, the DOI needs to understand the core parameters of water quality, including (but not limited too): Is the water safe to recreate in for visitors and residents? What is the current surface water quality? Will water quality be monitored for change overtime? Is the water safe to be used for agriculture, other uses, etc…? Is evapotransporation of water in the form of fog a concern? Is it safe to eat wildlife that drinks water from Lake Roosevelt?	This comment will be addressed in the surface water SAP and by EPA in its human health risk assessment.	The DQOs developed for this proposed surface water study take into account both human and ecological potential uses of surface water, as discussed in Section A7. The proposed analytes include water quality parameters that will allow for characterization of water quality along cross-sectional transects distributed througout the UCR.

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USEPA 2007b	Section 8_Remedial Investigation Approach	A106	135	8-24	In addition to the basic data needs associated with recreational use and consumption on page 8-24, DOI needs to understand the below items to communicate the potential risks to employees, recreational users, tribal members, and adjacent landowners. What are the recreational use patterns for Lake Roosevelt? What are the fish and wildlife consumption patterns north of Kettle Falls? What are the possible exposure pathways for users and employees?	TCAI is coordinating with EPA and participating parties to plan surveys that will provide this information, which will be used by EPA in the human health documents.	Human health considerations were included in the design of the proposed surface water study (see Section A7). Three disturbed sediment surface water samples have been added to each end of each transect to assess to support the human health risk assessment and at three locations on one bank at Black Sand Beach. Disturbed near-shore water samples will be collected during the early September sampling event only when human use of the site is greatest.
USEPA 2007b	Section 11_Deliverables	A124	155		While it is anticipated that QAPPs will be developed for each study more emphasis needs to be placed on ensuring that consistent analytical methods and QA/QC procedures are applied across studies whenever possible. A program-level quality assurance plan should be developed to outline analytical QA parameters that are potentially applicable for many of the studies under consideration, while maintaining the flexibility necessary for more stringent or specific criteria when needed.	Good point; we agree. A programmatic QAPP could be developed as individual SAPs are prepared, and expanded to include new media and new analytical methods.	This QAPP will contribute to the programmatic QAPP.

Notes:

USEPA. 2007a. Round 2 comments on Teck Cominco draft RI/FS work plan dated December 27, 2006, Upper Columbia River RI/FS. Comments dated April 11, 2007. U.S. Environmental Protection Agency, Washington, DC.
USEPA. 2007b. Round 3 comments on Teck Cominco draft RI/FS work plan dated December 27, 2006, Upper Columbia River RI/FS. Comments dated June 14, 2007. U.S. Environmental Protection Agency, Washington, DC.
[a] Document page number refers to page numbers in the December 2006 Draft UCR RI/FS Work Plan (TCAI 2006).